

Diagrammatic view of air-conditioning system

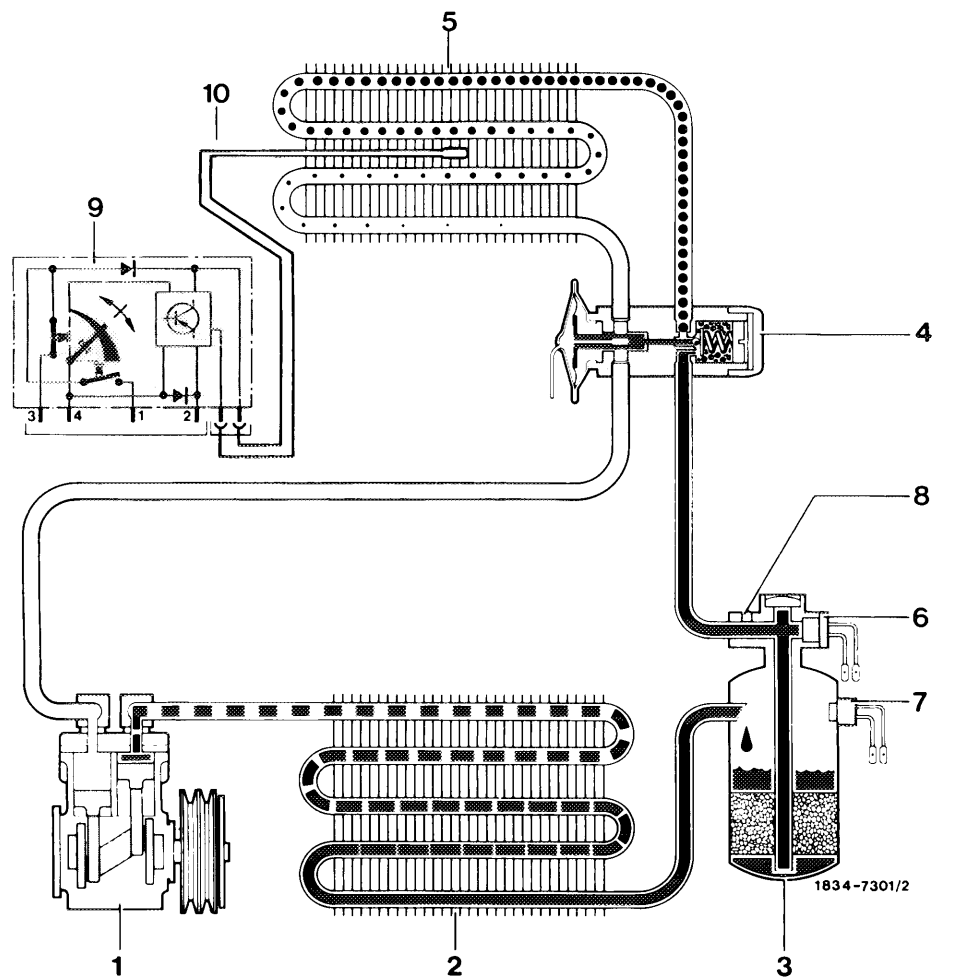
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|---|---|
| <ul style="list-style-type: none"> 1 Refrigerant compressor with electromagnetic clutch 2 Condenser 3 Receiver dehydrator with filter drier and sight glass 4 Expansion valve | <ul style="list-style-type: none"> 5 Evaporator 6 Temperature switch (auxiliary fan) 7 Pressure switch 9 Temperature dial up to 06/81
ETR-switch (starting 07/81) |
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The refrigerant compressor (1) driven by the engine will draw up the heated, gaseous and slightly pressurized refrigerant R 12 for delivery to the condenser (2). The head wind will flow through condenser located in front of radiator and will cool the refrigerant vapor which has been additionally heated and put under high pressure until it is fluid. The now fluid refrigerant will then flow to the receiver dehydrator (3).

The filter drier installed in receiver dehydrator will extract any remaining water from fluid refrigerant to prevent any icing-up of expansion valve (4). A sight glass at top of receiver dehydrator permits checking quantity of refrigerant in system at any time.

With the system switched on, the refrigerant should circulate free of bubbles. From receiver dehydrator the refrigerant flows to the expansion valve (4). The expansion valve on evaporator and a metering device in expansion valve will change the high pressure of the fluid refrigerant into a low pressure fluid in evaporator (5) upon which the fluid will become a vapor. The required vaporizing heat is taken from the air flowing through evaporator: the air will be cooled.

The vaporized refrigerant is drawn up by the refrigerant compressor and is again compressed to complete the cycle.



Layout refrigerant circuit

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| 1 Refrigerant compressor with electromagnetic clutch | 6 Temperature switch (auxiliary fan) |
| 2 Condenser | 7 Pressure switch |
| 3 Receiver dehydrator with filter drier and sight glass | 8 Fuse (up to 09/81) |
| 4 Expansion valve | Pressure relief valve (starting 10/81) |
| 5 Evaporator | 9 Temperature dial (up to 06/81) |
| | ETR-switch (starting 07/81) |
| | 10 Temperature sensor (up to 06/81) |

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|--|-------------------------|
| | Low pressure – gaseous |
| | Low pressure – fluid |
| | High pressure – gaseous |
| | High pressure – fluid |